

ABSTRACT

The present invention relates to a novel protein expression system having an oligonucleotide encoding a small heat shock protein (sHSP) operably linked to a promoter and an oligonucleotide encoding a protein of interest. In one embodiment the expressed sHSP is a truncated α -crystallin polypeptide derived from a wild-type α -crystallin protein, wherein the truncated sHSP lacks an N-terminal sequence present in the wild-type α -crystallin polypeptide. In an additional embodiment, a protein is coexpressed with a sHSP, thereby increasing the level of expression, enhancing folding and increasing the solubility of the protein.